

WHAT IS CLAIMED IS:

1. A self extinguishing composite primary structure comprising:

a core formed from a fire retardant material;

said core having a first surface and a second surface;

and

at least one ply of a structural graphite prepreg material bonded to each of said first surface and said second surface.

2. A self extinguishing composite primary structure according to claim 1, wherein each said ply is bonded to each of said first and second surfaces by an epoxy structural film adhesive.

3. A self extinguishing composite primary structure according to claim 1, wherein a plurality of plies of structural graphite prepreg are bonded to each of said first and second surfaces by an epoxy structural film adhesive.

4. A self extinguishing composite primary structure according to claim 1, wherein said core comprises a plurality of honeycomb cells filled with a fiberglass material.

5. A self extinguishing composite primary structure according to claim 1, wherein each said ply is formed from a graphite cloth impregnated with an epoxy resin.

6. A helicopter comprising:

at least one component formed from a self extinguishing composite material, said self extinguishing composite material comprises a core formed from a fire retardant material, which core has a first surface and a second surface, and at least one ply of a structural graphite prepreg material bonded to each of the first surface and the second surface.

7. A helicopter according to claim 6, wherein said at least one component comprises an outer skin panel in a cockpit section of said helicopter.

8. A helicopter according to claim 6, wherein said helicopter has a cabin section and said at least one component comprises an upper cabin door in said cabin section.

9. A helicopter according to claim 6, wherein said helicopter has a cabin section and said at least one component comprises a lower cabin door in said cabin section.

10. A helicopter according to claim 9, wherein said lower cabin door includes a plurality of steps and each of said steps being formed from said self extinguishing composite material.

11. A helicopter according to claim 6, wherein said helicopter has a cabin section and said at least one component comprises at least one floor panel in said cabin section.

12. A helicopter according to claim 6, wherein said helicopter has a cabin section and said at least one component comprises at least one emergency egress hatch in said cabin section.

13. A helicopter according to claim 6, wherein said helicopter has a transition section and said at least one component comprises an upper door in said transition section.

14. A helicopter according to claim 6, wherein each said ply is bonded to each of said first and second surfaces by an epoxy structural film adhesive.

15. A helicopter according to claim 14, wherein said epoxy structural film adhesive comprises a 350 degree Fahrenheit epoxy structural film adhesive.

16. A helicopter according to claim 6, wherein said self extinguishing composite material comprises a plurality of plies of structural graphite prepreg bonded to each of said first and second surfaces by an epoxy structural film adhesive..

17. A helicopter according to claim 6, wherein said core comprises a plurality of honeycomb cells filled with a fiberglass material.

18. A helicopter according to claim 6, wherein each said ply is formed from a graphite cloth impregnated with an epoxy resin.